II. CLAIM AMENDMENTS

28-94. (Cancelled)

95. (New) A method for decoding of encoded video frames, the encoded video frames being described by syntax elements, the syntax elements having decoding dependencies in accordance with a dependency tree having a root, the method comprising:

receiving an encoded video frame described by syntax elements in accordance with said dependency tree,

forming a first reference frame using all of the syntax elements of said dependency tree, and

forming a second reference frame using some of the syntax elements of said dependency tree, wherein used syntax elements comprise the tree root and unused syntax elements are on branches away from the root.

96. (New) A method for decoding of encoded video frames according to claim 95, further comprising replacing the unused syntax elements with default values when forming the second reference frame.

97. (New) A method for decoding of encoded video frames according to claim 96, further comprising selecting the default values based upon an indication signalled in a bitstream.

98.   (New) A method for decoding of encoded video frames according to claim 96, further comprising:

generating a temporary bit-stream comprising the used syntax
    elements and the default values, and

decoding the temporary bit-stream in a manner identical to the
    decoding performed when all of the syntax elements are used.

99.   (New) A method for decoding of encoded video frames according to claim 95, wherein forming the second reference frame is done using a selected algorithm, the selected algorithm being selected based upon an indication signalled in a bitstream.

100.   (New) A method for decoding according to claim 95, further comprising decoding a second encoded video frame using prediction from the first reference frame.

101. (New) A method for decoding according to claim 95, further comprising decoding a second encoded video frame using prediction from the second reference frame.

102.   (New) A method of decoding according to claim 101, wherein the decoding using prediction from the second reference frame is in response to an indication that is part of the second encoded video frame.

103. (New) A method for decoding of encoded video frames, the encoded video frames being described by syntax elements, the syntax elements having decoding dependencies in accordance with a dependency tree having a root, the method comprising:

receiving an encoded video frame described by syntax elements in accordance with said dependency tree,

determining an inability to form a first reference frame using all of the syntax elements of said dependency tree, the inability resulting from syntax element errors,

forming a second reference frame using some of the syntax elements of said dependency tree, wherein used syntax elements comprise the tree root and unused syntax elements are on branches away from the root, and

sending an indication to an encoder, the indication being instructive of the inability to form the first reference frame.

104. (New) A method for encoding of video frames to produce encoded video frames, the encoded video frames comprising syntax elements, the syntax elements having decoding dependencies in accordance with a dependency tree having a root, the method comprising:

receiving a first video frame,

using a first reference frame to encode the first video frame to produce a first encoded frame, the first encoded frame

4

comprising syntax elements in accordance with said dependency tree,

decoding the first encoded frame using all of the syntax elements of said dependency tree,

storing a result of the decoding of the first encoded frame in a first buffer,

receiving a second video frame,

using a second reference frame to encode the second video frame to produce a second encoded frame, the second encoded frame comprising syntax elements in accordance with said dependency tree,

decoding the second encoded frame using some of the syntax elements of said dependency tree, wherein used syntax elements comprise the tree root and unused syntax elements are on branches away from the root, and

storing the result of the decoding of the second encoded frame in a second buffer.

105. (New) A method according to claim 104, comprising:

receiving a third video frame, and

using said result of the decoding of the second encoded frame stored in said second buffer as a reference to encode the third video frame to produce a third encoded frame.

106. (New) A method according to claim 104, comprising:

receiving a third video frame, and

using said result of the decoding of the first encoded frame stored in said first buffer as a reference to encode the third video frame to produce a third encoded frame.

107. (New) A method according to claim 104, further comprising specifying, in the first encoded frame, those syntax elements which are sufficient to produce an acceptable reconstructed picture.

108. (New) A method according to claim 104, further comprising:

transmitting the first encoded frame,

choosing which of the syntax elements to use in forming the second reference frame, and

forming the second reference frame based upon the chosen syntax elements.

109. (New) The method of claim 108, wherein transmitting the first encoded frame precedes in time choosing which syntax elements to use in forming the second reference frame.

110. (New) A method according to claim 104, further comprising:

providing in the first encoded frame an indication of the first reference frame used for encoding, and

transmitting the first encoded frame.

111. (New) A device for video decoding of encoded video frames, the encoded video frames being described by syntax elements, the syntax elements having decoding dependencies in accordance with a dependency tree having a root, the device comprising:

an input for receiving an encoded video frame,

a first frame decoder coupled to the input, the first frame decoder arranged to decode the encoded video frame using all of the syntax elements of said dependency tree to produce a first reference frame,

a first buffer coupled to the first frame decoder, the first buffer being arranged to store the first reference frame,

a second frame decoder coupled to the second frame decoder, the second frame decoder arranged to decode the encoded video frame using some of the syntax elements of said dependency tree to produce a second reference frame, wherein used syntax elements comprise the tree root and unused syntax elements are on branches away from the root, and

a second buffer coupled to the second frame decoder, the second buffer being arranged to store the second reference frame.

112. (New) A device according to claim 111, wherein the device is arranged to decode a second encoded video frame using prediction from the first reference frame.

113. (New) A device according to claim 111, wherein the device is arranged to decode a second encoded video frame using prediction from the second reference frame.

114. (New) A device for video decoding according to claim 111, wherein the unused syntax elements comprise prediction error information.

115. (New) A device for video decoding according to claim 114, wherein the used syntax elements comprise motion vector information.

116. (New) A device for video decoding according to claim 111, wherein the second frame decoder is arranged to replace the unused syntax elements with default values before decoding.

117. (New) A device for video encoding of video frames, the resulting encoded video frames being described by syntax elements, the syntax elements having decoding dependencies in accordance with a dependency tree having a root, the device comprising:

a frame encoder, the frame encoder arranged to encode a video frame to produce an encoded frame, the encoded frame being

in accordance with said dependency tree, the frame encoder comprising decoding functionality, the decoding functionality arranged to produce a first reference frame, the first reference frame being produced by using all of the syntax elements of said dependency tree,

a first buffer coupled to the first frame decoder, the first buffer being arranged to store the first reference frame,

a frame constructor coupled to the frame encoder, the frame constructor arranged to decode the encoded video frame using some of the syntax elements of said dependency tree to produce a second reference frame, wherein used syntax elements comprise the tree root and unused syntax elements are on branches away from the root, and

a second buffer coupled to the frame constructor, the second buffer being arranged to store the second reference frame.

118. (New) A device according to claim 117, wherein the device is arranged to encode a second video frame using prediction from the first reference frame.

119. (New) A device according to claim 117, wherein the device is arranged to encode a second video frame using prediction from the second reference frame.

120. (New) A device for video encoding of video frames according to claim 117, wherein the frame constructor is arranged to decide which syntax elements to use in constructing the second reference

frame, wherein transmission of the encoded frame precedes in time, deciding which syntax elements to use.

121. (New) A device for video encoding of video frames according to claim 117, wherein the frame encoder is arranged to specify, in the encoded frame, which syntax elements are sufficient to produce an acceptable reconstructed picture.

122. (New) A video communications terminal comprising:

a decoder for decoding encoded video frames, the encoded video frames being described by syntax elements, the syntax elements having decoding dependencies in accordance with a dependency tree having a root, the decoder comprising an input for receiving an encoded video frame, a first frame decoder coupled to the input, the first frame decoder arranged to decode the encoded video frame using all of the syntax elements of said dependency tree to produce a first reference frame, the decoder further comprising a first buffer coupled to the first frame decoder, a second frame decoder coupled to the second frame decoder, the second frame decoder arranged to decode the encoded video frame using some of the syntax elements of said dependency tree, wherein used syntax elements comprise the tree root and unused syntax elements are on branches away from the root, and a second buffer coupled to the second frame decoder, and

a transceiver coupled to the decoder.

123. (New) A video communications terminal comprising:

an encoder for video encoding of video frames, the resulting encoded video frames being described by syntax elements, the syntax elements having decoding dependencies in accordance with a dependency tree having a root, the encoder comprising a frame encoder, the frame encoder arranged to encode a video frame to produce an encoded frame, the encoded frame being in accordance with said dependency tree, the frame encoder comprising decoding functionality, the decoding functionality arranged to produce a first reference frame, the first reference frame being produced by using all of the syntax elements of said dependency tree, the encoder further comprising a first buffer coupled to the first frame decoder, the first buffer being arranged to store the first reference frame, a frame constructor coupled to the frame encoder, the frame constructor arranged to decode the encoded video frame using some of the syntax elements of said dependency tree to produce a second reference frame, wherein used syntax elements comprising the tree root and unused syntax elements are on branches away from the root, and a second buffer coupled to the frame constructor, the second buffer being arranged to store the second reference frame, and

a transceiver coupled to the encoder.

124. (New) A bit-stream representative of an encoded video frame, the encoded video frame comprising syntax elements, the syntax elements having decoding dependencies in accordance with a dependency tree having a root, the bit-stream comprising an indication for use by a decoder in determining which syntax elements have been used to form a reference frame by the encoder,

11

wherein said reference frame has been formed using some of the syntax elements of said dependency tree, the used syntax elements comprising the tree root and the unused syntax elements being on branches away from the root, wherein said reference frame was used in the encoding process which produced the encoded video frame.